

# 2010 Indiana Deer Season Summary





"A downed animal is most certainly the object of a hunting trip, but it becomes an anticlimax when compared to the many other pleasures of the hunt." ~Fred Bear

# **2010 Indiana Deer Harvest Summary**

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Federal Aid in Wildlife Restoration Program
This program supports state fish and wildlife agencies to conserve, protect, and enhance fish, wildlife, their habitats, and the hunting, sport fishing and recreational boating opportunities they provide. This program was initiated in 1937 as the Federal Aid in Wildlife Act and created a system where by taxes are paid on firearms, ammunition and archery equipment by the public who hunts. Today this excise tax generates over a hundred million dollars each year that are dedicated to state wildlife restoration and management projects across the United States.



#### Overview

The 2010 Indiana deer hunting season was comprised of four seasons: Early Archery (Oct. 1 to Nov. 28), Firearms (Nov. 13 to Nov. 28), Muzzleloader (Dec. 4-19), and Late Archery (Dec. 4 to Jan. 2). Additionally, there was a youth-only season Sept. 25-26 that was open to youth age 17 or younger who was accompanied by an adult at least 18 years old. The youth could take one either sex deer during this special season.

The statewide archery bag limit was two deer. Hunters could take one deer per license for a total of either two antlerless deer or one antlered and one antlerless deer. A hunter could take only one antlered deer during all statewide seasons combined using archery, firearm, or

muzzleloader licenses. This was the 14<sup>th</sup> year the crossbow was legal for hunting by non-disabled hunters under an archery license. The crossbow was eligible for use only during the late archery season and could be used for deer of either sex.

Archers could harvest deer in designated urban zones that did not count towards any other statewide bag limit. Each extra urban zone deer required a separate extra archery license. The archery season in the urban deer zone opened two weeks prior



to the opening of the early archery season (Sept. 15 to Nov. 28), and continued again into January (Dec. 4 to Jan. 2). Archers were allowed to harvest up to either four antlerless deer or three antlerless and one antlered deer during this period. Any deer harvested during this period were in addition to all other bag limits.

The bag limit during firearms season was one antlered deer, and the bag limit for the muzzleloader season was one either sex deer (maximum of one antlered deer harvested per hunter). A single firearms license was required to hunt with any or all shotgun, muzzleloader, rifle, or handgun during the firearms season, and a muzzleloader license (separate from the firearms license) was required to hunt during the muzzleloader season.

The resident deer license fee was \$24 and the nonresident fee was \$150. When an agricultural advantage could be gained, resident landowners who hunted on land they own were exempt from purchasing deer licenses, as were lessees.

Special public hunts were held at Muscatatuck and Big Oaks National Wildlife Refuges, Naval Surface Activity Crane, Newport Chemical Depot, and Camp Atterbury Joint Maneuver Training Center.

#### **Bonus Antlerless Permits**

An unlimited number of bonus antlerless permits were available at every deer license vendor statewide, and each permit could be used in any county. County bag limits ranged from A to 8 (Figure 1). Permits were available to both resident and non-resident hunters.

Each permit was valid for one antlerless deer, and hunters were allowed to take as many bonus antlerless deer as desired, as long as the county antlerless bag limits were observed.

Bonus antlerless permits cost \$24 and \$150 for the first permit for residents and nonresidents, respectively. The second and each additional permit was \$15 for residents and \$24 for nonresidents.

Bonus antlerless permits could be used during all deer hunting seasons except for "A"-designated counties, where

St. Josep h Elkhari La Porte Porter Lake Noble De Kalb Marshall Starke Pulaski Fulton Wabash Adams White Benton Carroll Howard 4 Blackford Jay Warren Clinton Tip to n Delaw a re Randolph Fountair Hamilton Montgomery Henry Wayne Hend ricks Putnam ayette Union Shelb y Jo hn so n Morgan Vige Franklin Clay Owen Brown Bartholomew Монгое Dearhorn Sullie an Jennings Ohio Lawrence Daviess Martin Orange Clark Dubois Crawford Warrick R

Figure 1. Antlerless deer bag limits in 2010.

the license could only be used during the last four days of the firearms season (Nov. 25 to Nov. 28) plus the late archery and muzzleloader seasons.

# **Deer Harvested by Season**

A total of 134,004 deer were legally harvested in Indiana during the 2010 season (Figure 2). This harvest was 1% higher than the 132,752 deer harvested during the 2009 season. The antlered deer harvest of 53,007 was nearly identical to the 52,981 harvested last year. The antlerless harvest of 80,997 was 1.5% more than the 79,771 harvested in 2009. In 2010, the harvest for total deer and antlerless deer ranks as the highest reported kill for each category in history. The antlered harvest ranks second all-time.

Approximately 2.86 million deer have been legally harvested during the past 58 deer hunting seasons in Indiana.

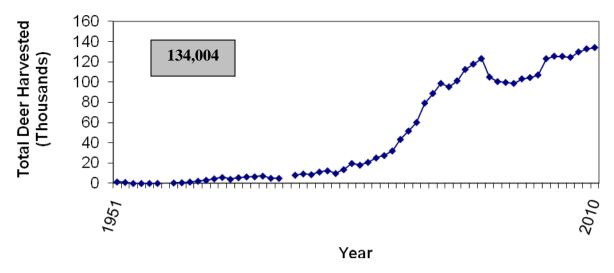
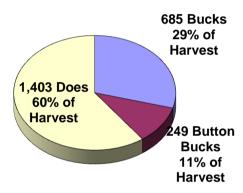


Figure 2. The number of deer harvested in Indiana deer hunting seasons 1951-20010.

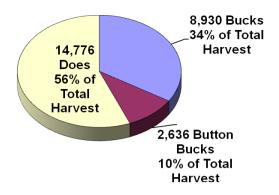


The hunting season began with urban deer zones (Sept. 15) followed by a youth only weekend (Sept. 26-27). This season was created in 2006 and allowed youths 15 years and younger to harvest one antlerless deer. It was changed in 2009 to include all youths 17 years and younger. This year was the first year youths could harvest an antlered deer during this season. A total of 2,337 deer were harvested in 2010 during this season, up 39% from the 1,687 from 2009. This season resulted in 2% of the total harvest (Table 1). Bucks made up 29% of the harvest, and only 11% of the harvest was comprised of button bucks (Figure 3).

Figure 3. 2010 Youth Season harvest composition

The early archery season harvest (including the early Urban Deer Zones) of 26,342 deer comprised 20% of the total harvest and was nearly 5% less than the 27,818 harvested in 2009 (Table 1). The late archery season comprised 1% of the total harvest, similar to the 2009 season. The combined archery seasons yielded 28,026 deer, a decrease of 5% from the 29,416 harvested in 2009. Antlerless deer comprised 67% of the total archery harvest, up 2 percentage points from 2009. Antlerless harvest in early archery season was 66%, while in late archery it was 80% (Figure 4). Does made up 56% of the total harvest in early archery season and nearly 68% of the harvest in late archery season.





B.

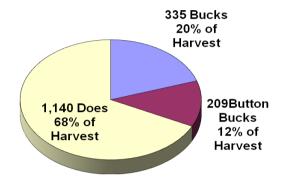


Figure 4. A. Early Archery harvest and B. Late Archery harvest composition in 2010



Table 1. Number of deer harvested in each segment of the 2010 Indiana deer hunting season. Percent of total harvest in parentheses (totals may not be exactly 100 due to rounding).

Season	Number of deer harvested					
Season	Antlered	Antlerless	Total			
Youth season (25-26 Sept)	685 (1)	1,652 (2)	2,337 (2)			
Early Archery* (1 Oct - 28 Nov)	8,930 (17)	17,412 (21)	26,342 (20)			
Firearms (13-28 Nov)	39,818 (75)	46,423 (57)	86,241 (64)			
Muzzleloader (4-19 Dec)	3,239 (6)	14,161 (17)	17,400 (13)			
Late Archery (4 Dec - 2 Jan)	335 (0)	1,349 (2)	1,684 (1)			
Totals	53,007	80,997	134,004			
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<sup>\*</sup>Includes the early Urban Deer Zone Starting on 15 September

The firearms season harvest of 86,241 deer was an increase of nearly 4% from the 83,096 deer harvested in 2009 and comprised 64% of the total harvest (Table 1). The antlerless harvest of 46,243 was 5% more than the 2009 antlerless harvest of 44,175, while the antlered harvest of 39,818 was 2% more than the antlered deer harvest in 2009 (38,921). Antlered deer made up at least half of the total harvest on only the first two days of firearm season, while antlerless deer outnumbered antlered deer during the remaining 14 days of the season (Table 2). During the opening weekend of firearms season, 44% of the total firearm season harvest occurred, up slightly from 43% in 2008. Opening weekend contributed to 28% of the statewide total harvest for all seasons, which is 1 percentage point more than the opening

weekend harvest from 2009. Antlerless deer comprised 54% (82% of which were does) of the firearm season harvest (Figure 5).

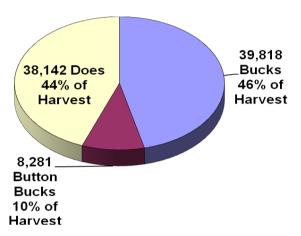




Figure 5. 2010 Firearms season harvest composition

Table 2. Number of deer harvested on each day of the 2010 Indiana firearm season (includes deer taken by bow, shotgun, pistol, rifle, and muzzleloader.

		Antlered		Antlerless		Total	
Date	Day	N	Daily %	N	Daily %	N	Total %
13 November	Sat	14,080	57	10,681	43	24,761	29
14 November	Sun	6,792	53	5,972	47	12,764	15
15 November	Mon	2,400	49	2,514	51	4,914	6
16 November	Tue	1,526	48	1,661	52	3,187	4
17 November	Wed	1,579	48	1,733	52	3,312	4
18 November	Thu	1,226	46	1,450	54	2,676	3
19 November	Fri	1,494	42	2,045	58	3,539	4
20 November	Sat	3,156	41	4,519	59	7,675	9
21 November	Sun	1,737	41	2,498	59	4,235	5
22 November	Mon	340	35	643	65	983	1
23 November	Tue	648	40	960	60	1,608	2
24 November	Wed	389	35	730	65	1,119	1
25 November	Thu	302	37	525	63	827	1
26 November	Fri	1,374	31	3,017	69	4,391	5
27 November	Sat	1,532	28	3,869	72	5,401	6
28 November	Sun	1,424	27	3,764	73	5,188	6
Totals*		39,999		46,581		86,580	100

<sup>\*</sup> Totals differ from those in previous table because date of harvest is not known for some registered deer and this table includes deer from both the firearms season and the last 16 days of the early archery season.

The muzzleloader season harvest of 17,400 comprised 13% of the total harvest, down 1 percentage point from last year (Table 1). This year's muzzleloader season harvest was 6% lower than the 2009 muzzleloader harvest (18,553). As in years past, a large percentage of the deer harvested during the muzzleloader season were antlerless (81%) (Figure 6).

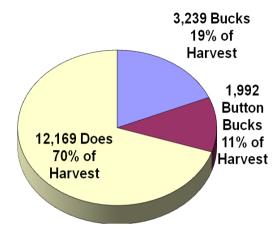




Figure 6. 2010 Muzzleloader season harvest composition

# **Harvest by Equipment Type**

Six types of equipment were legal for hunting deer during 2010: bows, shotguns,

muzzleloaders, handguns, crossbows, and rifles. Rifle cartridges were restricted to .357 diameter or larger bullet, and case length must be between 1.16 and 1.625 inches. These types of equipment accounted for 20%, 46%, 25%, 1%, 1%, and 7% of the total deer harvest, respectively (Figure 7). Shotgun harvest decreased 6% from 2009. Harvest by muzzleloader increased 2%, while bow and handgun decreased 5% and 32% from 2009, respectively (Table 3).

The total crossbow harvest for the year, including deer taken on disabled hunter crossbow permits, was 928 animals, nearly identical to the number harvested in 2009. During the late archery season, the crossbow harvest was 172 deer, compared with 182 in 2009 and 159 in 2007 (Table 3). Reported harvest with rifles increased this year by 225% compared to 2009. This was the first year that check boxes for rifles was included on check station sheets, and likely contributed to the increased reporting of deer harvested by rifles.

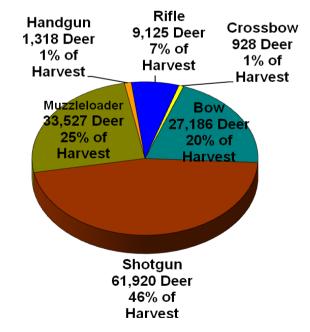


Figure 7. 2010 harvest by equipment type in Indiana

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Table 3.	Number of deer harvested by type of legal hunting equipment during the 2005-2010 seasons.
Annroxi	mate percent of total harvest shown in parentheses

Equipment type	2005	2006	2007	2008	2009	2010
Bow*	23,692 (19)	26,723 (21)	26,187 (21)	26,369 (20)	28,497 (21)	27,186 (20)
Shotgun	70,022 (56)	66,304 (53)	63,919 (51)	68,520 (53)	65,839 (50)	61,920 (46)
Muzzleloader	29,686 (24)	30,247 (24)	30,740 (25)	30,295 (23)	32,745 (25)	33,527 (25)
Handgun	1,606 (1)	1,386 (1)	1,615 (1)	1,949 (2)	1,932 (1)	1,318 (1)
Rifle	x	x	1,203 (1)	1,788 (1)	2,809 (2)	9,125 (7)
Crossbow						
Disabled	427(0)	591 (0)	609 (0)	668 (1)	748 (1)	756 (1)
Late archery	93 (0)	130 (0)	154 (0)	159 (0)	182 (0)	172 (0)
Totals	125,526	124,562	124,427	129,748	132,752	134,004

<sup>\*</sup> Crossbow harvest is not included in bow harvest. Values within this table do not exactly equal those tallied by season (page 3) due to the fact that multiple equipment types can be used during the firearm season. Muzzleloaders may also be used during both the firearm and muzzleloader season. Additionally, differences arise due to the different methods required to analyze data when either the equipment or the season is unknown.

# **Harvest by License Status**

Licensed resident hunters (lifetime, resident, and youth license holders) accounted for over 81% of the total deer harvest (Table 4). Licensed nonresident hunters harvested over 2%

of the total harvest. Hunters with a regular yearly deer hunting license (resident plus non-resident) took only ~46% of the total deer harvest; hunters not paying the full yearly price (i.e. lifetime license holders, youth license holders, landowners/tenants, and military personnel) took over 54% of the total harvest. Landowners and lessees who hunted on their own land without a license and military personnel on official leave status accounted for almost 17% of the total deer harvest. Of the deer harvested by license-exempt hunters, nearly 99% were taken by landowners/tenants while only 1% by military personnel on leave.

Table 4. Harvest distribution of deer by license type during 2010 hunting season.

		Percent
License	Deer	of
Status	Harvested	Harvest
Resident	58,182	43.42
Lifetime	37,630	28.08
Land Owner	22,256	16.61
Youth	12,753	9.52
Nonresident	2,934	2.19
Military	249	0.19
Total	134,004	100.0

# **Harvest Age and Sex Structure**

The age and sex structure of the 2010 deer harvest was 40% adult males (antlered bucks), 37% adult females, 10% male fawns (button bucks), and 13% female fawns (Table 5). These percentages are similar to the harvest in 2009. About 40% of the antlered bucks and 32% of the adult does harvested during 2010 were yearlings (1.5 years old) (Figure 8).

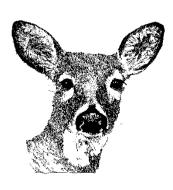


Table 5. Sex and age structure of the Indiana deer harvest during 1987-2010, as determined from mandatory check stations.

_	Ac	dults	Fa	Fawns			
Year	Males (%)	Females (%)	Males (%)	Females (%)	Total		
1987	29,530 (57)	11,139 (21)	6,164 (12)	4,945 (10)	51,778		
1988	34,358(57)	13,170 (22)	7,050 (12)	5,656 (10)	60,234		
1989	40,503 (51)	19,464 (24)	10,737 (14)	8,614 (11)	79,318		
1990	43,080 (48)	23,680 (27)	12,373 (14)	9,630 (11)	88,763		
1991	41,593 (42)	31,211 (32)	14,626 (15)	11,253 (11)	98,683		
1992	43,508 (46)	25,387 (27)	14,262 (15)	12,157 (13)*	95,314		
1993	44,424 (44)	27,704 (27)	14,751 (15)	14,335 (14)*	101,214		
1994	50,812 (45)	32,466 (29)	15,487 (14)	13,651 (12)*	112,416		
1995	47,098 (40)	40,946 (35)	16,398 (14)	13,287 (11)*	117,729		
1996	47,315 (38)	39,913 (32)	17,307 (14)	18,551 (15)*	123,086		
1997	42,537 (41)	35,163 (34)	14,039 (13)	13,198 (12)*	104,937		
1998	44,955 (45)	30,711 (31)	12,257 (12)	12,538 (12)*	100,461		
1999	46,371 (46)	30,474 (31)	11,645 (12)	11,129 (11)*	99,618		
2000	44,621 (45)	31,986 (32)	11,072 (11)	11,046 (11)*	98,725		
2001	48,357 (47)	31,806 (31)	11,230 (11)	11,770 (11)*	103,163		
2002	47,177 (45)	35,357 (34)	11,291 (11)	10,603 (10)*	104,428		
2003	49,533 (46)	36,303 (34)	10,262 (10)	10,887 (10)*	106,986		
2004	54,743 (44)	41,749 (34)	12,501 (10)	14,065 (11)*	123,058		
2005	52,488 (42)	44,286 (35)	13,030 (10)	15,722 (13)*	125,526		
2006	49,097 (39)	45,257 (36)	13,688 (11)	17,339 (14)*	125,381		
2007	49,375 (40)	44,514 (36)	13,313 (11)	17,225 (14)*	124,427		
2008	50,845 (39)	46,666 (36)	13,083 (11)	19,154 (15)*	129,748		
2009	52,878 (40)	48,222 (36)	13,040 (10)	18,291 (14)*	132,431		
2010	53,007 (40)	49,911 (37)	13,367 (10)	17,719 (13)*	134,004		

<sup>\*</sup> Number of adult and fawn females is projected from the % fawns of all females aged at the biological check stations (not from the ratio of fawn doe to fawn bucks in the total deer harvest).

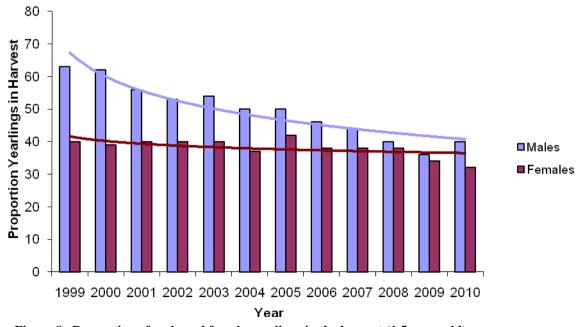


Figure 8. Proportion of male and female yearlings in the harvest (1.5 years old), as determined by aging during the first weekend of the firearms season, for years 1999-2010.

#### **Deer License Sales**

Deer license sales decreased this year from 2009 by 1%, down from 271,919 (Table 6). Youth licenses increased nearly 5% from 2008. License sales from all categories were down except for archery and nonresident licenses, which rose 1% and 7%, respectively. Resident Firearm licenses comprised the largest proportion deer licenses sold (38%), followed by Bonus Antlerless licenses (26%).

Table 6. Deer license sales in Indiana by type, 2008-2010*.							
2008 2009 20							
Resident Archery/Extra Archery	54,414	58,748	59,473				
Resident Firearm	103,562	105,150	102,626				
Resident Muzzleloader	20,983	23,356	21,975				
Resident Military/Refuge	2,460	2,684	2,541				
Resident Bonus Antlerless	68,792	71,511	70,673				
Nonresident	9,660	10,470	11,197				
Youth	37,295	38,330	39,248				
Total (excluding Youth)	259,871	271,919	268,485				



### **Distribution of the Harvest**

The number of deer harvested in individual counties ranged from 125 in Tipton County to 3,948 in Steuben County (Table 7). Harvest exceeded 1,000 deer in 64 counties; 2.000 deer in 17 counties; and 3.000 deer in five counties. The antlered buck harvest exceeded 1,000 in nine counties (down from ten in 2009), while the antlerless harvest exceeded 1,000 deer in 34 counties compared with 31 in 2009. Antlerless deer comprised at least 50% of the total harvest in 89 of the state's 92 counties in 2009 compared with 87 counties in 2009. The counties with the highest harvests were Steuben, Kosciusko, Switzerland, Noble, Franklin, Marshall, Dearborn, Parke, Lagrange, and Washington. The counties with the lowest harvests were Tipton, Benton, Hancock, Marion,

Blackford, Clinton, Rush, Shelby, Boone, and Hamilton.



<sup>\*</sup>Total numbers subject to change slightly via refunds or voids

Table 7. Number of deer harvested in each Indiana county during 2010 (after adjustment for unknowns).

ulikilowiis).	Number Harvested			Number Harvested			
County	Antlered	Antierless	Total	County	Antlered	Antlerless	Total
Adams	223	339	562	Lawrence	750	1,105	1,855
Allen	802	1,069	1,871	Madison	240	400	640
<b>Bartholomew</b>	510	634	1,144	Marion	145	152	297
Benton	89	62	151	Marshall	1,027	1,962	2,989
Blackford	137	165	302	Martin	712	918	1,630
Boone	212	219	431	Miami	604	992	1,596
Brown	667	1,022	1,689	Monroe	574	847	1,421
Carroll	399	560	959	Montgomery	502	696	1,198
Cass	588	825	1,413	Morgan	575	730	1,305
Clark	640	1,024	1,664	Newton	479	651	1,130
Clay	474	649	1,123	Noble	1,097	2,226	3,323
Clinton	166	193	359	Ohio	387	763	1,150
Crawford	664	1,035	1,699	Orange	789	1,158	1,947
Daviess	414	663	1,077	Owen	716	953	1,669
Dearborn	1,016	1,849	2,865	Parke	1,100	1,761	2,861
Decatur	287	400	687	Perry	698	847	1,545
DeKalb	923	1,538	2,461	Pike	680	871	1,551
Delaware	319	498	817	Porter	563	1,002	1,565
Dubois	676	1,106	1,782	Posey	643	874	1,517
Elkhart	577	1,045	1,622	Pulaski	715	1,055	1,770
Fayette	344	511	855	Putnam	979	1,260	2,239
Floyd	249	338	587	Randolph	320	295	615
Fountain	659	952	1,611	Ripley	762	1,114	1,876
Franklin	1,044	2,010	3,054	Rush	183	199	382
Fulton	766	1,335	2,101	St. Joseph	612	977	1,589
Gibson	600	885	1,485	Scott	375	604	979
Grant	336	543	879	Shelby	165	220	385
Greene	821	1,276	2,097	Spencer	634	726	1,360
Hamilton	210	266	476	Starke	667	1,078	1,745
Hancock	130	137	267	Steuben	1,389	2,559	3,948
Harrison	984	1,481	2,465	Sullivan	832	1,027	1,859
Hendricks	291	335	626	Switzerland	1,204	2,196	3,400
Henry	253	346	599	Tippecanoe	622	755	1,377
Howard	192	336	528	Tipton	73	52	125
Huntington	506	672	1,178	Union	248	396	644
Jackson	757	1,125	1,882	Vanderburgh	322	441	763
Jasper	654	1,055	1,709	Vermillion	516	659	1,175
Jay	373	678	1,051	Vigo	609	850	1,459
Jefferson	810	1,364	2,174	Wabash	743	1,050	1,793
Jennings	736	1,175	1,911	Warren	535	767	1,302
Johnson	250	384	634	Warrick	654	814	1,468
Knox	414	436	850	Washington	1,049	1,709	2,758
Kosciusko	1,231	2,347	3,578	Wayne	508	635	1,143
Lagrange	942	1,893	2,835	Wells	249	281	530
Lake	551	693	1,244	White	481	717	1,198
La Porte	859	1,374	2,233	Whitley	554	794	1,348

<sup>\*</sup> Totals may be off +/- 1 due to rounding during partitioning of harvested deer of unknown sex or county.

# **Disease Monitoring**

#### Epizootic Hemorrhagic Disease

Ten counties received reports of dead or dying deer due to Epizootic Hemorrhagic Disease (EHD) in Indiana in 2010 (Figure 9). EHD was not confirmed through laboratory testing in any case; however, cases were confirmed nearby in Illinois and Michigan. This marks the first time since 2008 that EHD has been reported in Indiana. The last major outbreak of EHD in Indiana occurred in 2007, and had far greater impact on the deer herd than the event seen this year.



Figure 9. Counties in Indiana with reports of EHD in 2010.

#### Chronic Wasting Disease

Chronic Wasting Disease (CWD) is one of a group of diseases called Transmissible Spongiform Encepalopathies, which is a variant of scrapie in sheep and Creutzfeldt-Jakob disease in humans. The agents of CWD are called prions which are abnormal, protease-resistant forms of cellular proteins normally synthesized in the central nervous system and lymphoid tissues. Prions that cause CWD are highly resistant to heat or disinfectant. No study has ever proven that CWD is transmissible to humans.

CWD has been reported in Wisconsin, Illinois, West Virginia, and most recently Virginia and Minnesota, among other states. In 2002, Indiana created a monitoring program to detect the presence of CWD, which focused on removing the obex or the retropharyngeal gland from random hunter harvested deer throughout the state, deemed active surveillance. Reports of outwardly noticeable sick deer have also been tested, named targeted surveillance. This monitoring continues today, and well as testing random samples of road killed deer which was instituted in 2007.

Results from the Division of Fish and Wildlife's 2010 CWD sampling are still pending. CWD has not been detected in over 11,000 deer during this monitoring period.

#### **Bovine Tuberculosis**

In September 2008, a cow in Franklin county, Indiana tested positive for Bovine Tuberculosis (TB). In May 2009, several red deer from a captive cervid operation less than ½ mile away tested positive for TB at a slaughterhouse. The subsequent depopulation of the cervid herd resulted in an infection rate of 56%; no other cow tested positive for TB.

The Division of Fish and Wildlife, along with the help of the Indiana Board of Animal Health and the United States Department of Agriculture mobilized staff to collect and test free ranging white-tailed deer at check stations during the opening weekend of firearms season in counties where captive cervids were identified. A total of 178 deer were sampled from Franklin county in 2010. Culturing from the National Veterinary Services Laboratory is complete and failed to detect the presence of TB in any free ranging deer this year. Indiana has tested 609 deer for TB during the past two years and has failed to detect the presence of TB in the free ranging deer herd.

For more information on deer health, visit www.in.gov/dnr/fishwild.

